Testimony of Dr. John A. Helms Professor Emeritus of Forestry University of California, Berkeley and Past President, Society of American Foresters Before the

Senate Agriculture, Nutrition, and Forestry, Subcommittee on Forestry, Conservation, and Rural Revitalization
August 2, 2006

Chairman Crapo, Ranking member Lincoln, and members of the Subcommittee, thank you for the opportunity to provide testimony on this important topic, the *Forest Emergency Recovery and Research Act* (HR 4200) and related issues. My name is John A. Helms, Professor Emeritus of Forestry at the University of California, Berkeley where I served as Head of the Department of Forestry and Resource Management. I'm also the immediate past president of the Society of American Foresters (SAF), which I represent today. SAF is a professional society representing over 15,000 forest managers, researchers, academics, and private consultants.

As a forest scientist and professor for 40 years, my experience covers numerous forest types in the western part of the country. Forest catastrophes such as wildfires, windstorms, and hurricanes will continue to plague the nation's forests as they have in the past. According to the National Interagency Coordination Center, wildfires in the US have burned over 57 million acres over the past 10 years. Consequently, debate on this issue is extremely important.

When these catastrophes occur, the basic goal of professional foresters acting to sustain values of the nation's forests is to immediately assess the nature of the damage and, where necessary and feasible, apply treatments aimed at restoring ecosystem and societal values as rapidly as possible. Speed is essential, as immediately after a catastrophe there are imminent threats of erosion, degradation of stream and wildlife habitat, decreasing values of salvageable forest products, and invasion of rapidly growing shrubs that will likely dominate the sites for decades to come. Additionally, as time passes, the costs of reforestation increase dramatically and the potential for generating revenue from the harvesting of dead trees decreases (see Figure 1). The basic approach to mitigation and management is to recognize the diversity of post-catastrophic conditions and to promptly apply management treatments, where necessary, to prevent further degradation and loss of ecosystem and/or economic values, and restore forest health.

Many of the diverse forests we enjoy today are the result of actions taken by forest managers over the past 100 years. In California in the 1950s and 1960s, the USDA Forest Service had a very successful program converting thousands of acres of brushfields resulting from past wildfires back to forests. Without this program these lands would most likely still be dominated by long-lived shrubs.

Unfortunately, today we are seeing many of these forests reverting back to brushfields. Of all the acres burned in 2001 in California, only 3.8 percent have been replanted. Nationally there is a growing reforestation backlog, now one million-acres and increasingly daily.

The cause of this backlog in reforestation as well as the slow or sometimes complete lack of additional recovery activities is complex but is directly related to the extensive administrative procedures and process hurdles federal managers must comply with. In contrast, forestland owners and managers of county, state, and tribal lands typically respond immediately to catastrophes while maintaining environmental standards, as proven by numerous reports and post recovery evaluations.

The key to forest recovery is balancing ecological, economic, and societal values. SAF believes that this can be done through broad professional assessment after catastrophic events and, where necessary, prompt and direct treatments. Monitoring these actions then provides the basis for recovering from the next catastrophe. Varying conditions demand flexibility, professional analysis, and striking a balance among varying site-specific approaches.

I'd like to share with you some examples where recovery and reforestation was completed in a timely manner and examples where it has not been done.

2001 Gap Fire

The Gap Fire burned 1,373 acres of the Tahoe National Forest and 1,077 acres of private land in August of 2001. Most of the areas burned on private land were treated by the end of November 2001. Because of lengthy process requirements of the National Environmental Policy Act and one administrative appeal, the recovery efforts following the Gap Fire took over 3 years to complete. Trees to be removed during the recovery efforts lost over \$1.3 million in value due to delay. As a result, less revenue was generated to pay for watershed restoration, reforestation, and fuels reduction. Today the remaining fuels create extremely hazardous fire conditions, and will cost roughly \$600 per acre to treat.

1992 Mt. Shasta Fountain Fire

The Fountain Fire burned 100 square miles of forest in Shasta County, California in 1992 (see photo 1). Most of the land was industrial forestland with some non industrial lands interspersed. The fire burned severely in many places causing extensive tree mortality as shown in photo 2. Immediately following the fire, the industrial landowners quickly assessed the damage and began conducting tree removal and reforestation. In contrast, the private non industrial landowners did not reforest. Ten years later, as you can see in photo 3, the private land on the right contains a thriving forest while the public land on the left remains a brushfield and will remain so for perhaps a century. Even today, if the non industrial landowners decided to attempt recovery work, it is likely to be unsuccessful and extremely costly, due to the competing brush and shrubs.

1960 Volcano Fire

The Volcano Fire of 1960 is another good example of what timely recovery can accomplish. Following the fire, the federal lands were quickly restored and reforested. Note this was in 1960 and federal processes were not as cumbersome as they are today. Today, as you can see in photo 4, this forest is thriving, with many large trees and excellent wildlife habitat. In contrast, photo 5 depicts adjacent private lands that were never treated—today this area remains a brushfield of manzanita and other shrubs.

As evidenced by these examples, timely recovery and reforestation can be the difference between a brush field and a thriving forest. Unfortunately, this is not occurring on federal forests and better processes are needed to enable quick action after events. Additionally, recovery research and landscape approaches to recovery are critical. The House bill, the *Forest Emergency Recovery and Research Act* (HR 4200) (FERRA), enables federal forest managers to respond quickly to catastrophic events on the nation's federally owned forests and provide the flexibility to work with adjacent landowners following these events. SAF recognizes that several bills have been introduced in the Senate with worthy aspects in addition to the House bill and we urge that those ideas consistent with the basic premise of restoring both ecosystem and societal values be considered as you move forward.

SAF believes the processes authorized in FERRA will enable quick response to disasters while still maintaining environmental review, public participation, and opportunity to appeal and litigate projects. Additionally, we believe the authority in the bill to develop independently peer-reviewed, "pre-approved" management practices through a regulatory process, involving the public, offers a valid alternative to conducting lengthy environmental review for each project while forest conditions degrade.

FERRA also respects pre-determined direction given in forest management plans, meaning that all actions taken in response to catastrophic events must comply with forest management plans. This is extremely important, given that these plans are developed with extensive public involvement and analysis, taking years and sometimes decades to develop. These plans provide "sideboards" for forest management in the nation's forests and will help to ensure that recovery and reforestation efforts meet the publicly-vetted goals and objectives for each forest.

The bill includes language that recommends limiting the creation of plantation forests in reforestation activities, with no definition referenced. Single-species, even-aged plantations are not appropriate for every forest type and may not achieve desired management objectives. However, in some regions of the country, emphasis on reforestation of either even- or uneven-aged stands of either pure or mixed species may be appropriate for meeting society's goals. We encourage you to consider this needed flexibility for differing forest types, different reforestation techniques, and different management objectives as you move forward.

In addition to burdensome and time-consuming process hurdles federal forest managers are also faced with limited resources both in terms of technical expertise and funding. FERRA takes steps to address this issue, offering additional flexibility to use funds from other accounts to pay for recovery and reforestation. We urge agencies to hire employees with the necessary professional forestry expertise to meet the growing needs for prompt recovery and reforestation given the likelihood of future catastrophes in our overstocked public forests.

SAF strongly supports the research and landscape assessment components of FERRA. The landscape assessments will allow federal forest managers to coordinate responses to catastrophic events with other landowners, working across ownership boundaries. Coordinating management across the landscape, rather than focusing on a single ownership, is critical to ensuring effective watershed and wildlife habitat protection.

The research aspect of the Act is essential to improving our understanding of ecosystem and social processes regarding forest recovery and reforestation. In particular, research needs to be broadened beyond studying individual organisms to gaining an understanding of the overall impacts and effectiveness of applied restoration practices on maintaining the integrity of the incredible array of diverse ecosystems across the United States.

In conclusion there is no question that, eventually, forests will eventually come back on their own after catastrophes -- nature has been doing this for millennia. The issue is that human society operates on much shorter time frames, has within-forest infrastructure, and has diverse tangible and intangible values in forests that necessitate taking prompt restoration actions. Without action, forests commonly will take decades to centuries to fully recover the characteristics and functions that we strive to protect with our clean water, endangered species, and forest management laws and regulations.

Forest managers can restore these values in a timely manner, and have been doing so for decades. SAF urges swift Senate action to pass forest recovery legislation similar to that approved in the House. Now is the time to enable federal forest managers to respond promptly and effectively to fulfill their stewardship responsibilities on federal lands.

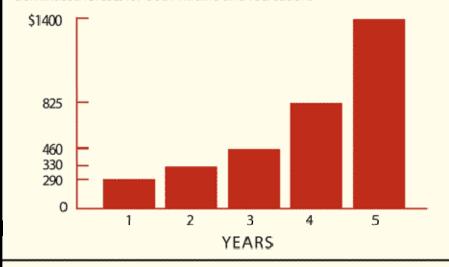
Mr. Chairman, thank you for your leadership on this important issue. I'm happy to address any questions you may have.

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Figure 1

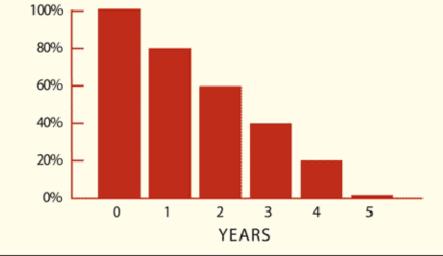
Replant Cost

Delays in replanting a forest after a fire can quickly make the cost prohibitive, due to the need for mechanical thinning if underbrush establishes itself first. According to Forest Engineer John Sessions, the prices shown here reflect replanting 200 conifers per acre of burned forest. This is approximately half the number of trees planted for commercial timber production, but this will achieve the goal of reestablishing coniferdominated forests for both wildlife and recreation.

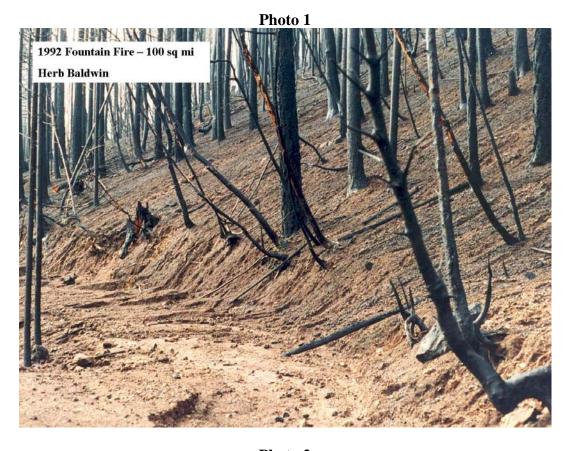


Salvage Value

Large wildfires leave most of the trees dead but still standing and commercially valuable. These trees can be sold for most of the same uses as a live tree if they are harvested immediately after a fire. According to John Sessions, however, they start to decompose rapidly, and will lose approximately 20 percent of their value in the first year and every year thereafter.



Extracted from study done by Dr. John Sessions, Professor of forest engineering, Oregon State University, College of Forestry



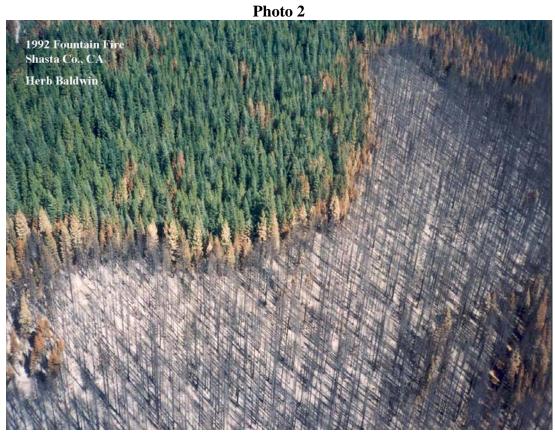


Photo 3



